

IN THE CLAIMS:

Please amend the claims as follows.

Claims 1-4 (Canceled).

Claim 5 (Currently Amended): An information record medium readable by an information reproducing apparatus, the information record medium comprising: a first recording layer on which a data group is recorded; and a second recording layer on which a data group is recorded, wherein

on the first recording layer, a lead-in area, management information for the whole of recording information, and the data group are recorded;

on the second recording layer, a lead-out area and a data group are recorded;

the lead-in area is recorded at the inner radius side of the information record medium; and

the lead-out area is recorded at the inner radius side of the information record medium,

wherein the medium further comprises: a mid area at the outer radius side of the first recording layer; and the other mid area at the outer radius side of the second recording layer.

Claim 6 (Canceled).

Claim 7 (Currently Amended): The information record medium according to claim [[6]] 5, wherein the first recording layer comprises the lead-in area, the management information, the data group, and the mid area in that order from the inner radius side of the first recording layer.

Claim 8 (Currently Amended): The information record medium according to claim [[6]]
5, wherein the second recording layer comprises the mid area, the data group, and the lead-out
area in that order from the outer radius side of the second recording layer.

Claim 9 (Currently Amended): The information record medium according to claim [[6]]
5, wherein the data group comprises: control data; and at least either video information or audio
information.

Claim 10 (Currently Amended): A recording apparatus comprising: a signal processing
device which generates additional information including a data group and management
information for the whole of recording information; and a recording device which records a lead-
in area, the management information, and a data group on a first recording layer of an
information record medium and records a lead-out area and a data group on a second recording
layer of the information record medium,

wherein the recording device records the lead-in area at the inner radius side of the
information record medium, and records the lead-out area at the inner radius side of the
information record medium,

wherein the recording device records a mid area at the outer radius side of the first
recording layer, and records the other mid area at the outer radius side of the second recording
layer.

Claim 11 (Canceled).

Claim 12 (Currently Amended): The recording apparatus according to claim [[11]] 10, wherein the first recording layer comprises the lead-in area, the management information, the data group, and the mid area in that order from the inner radius side of the first recording layer.

Claim 13 (Currently Amended): The recording apparatus according to claim [[11]] 10, wherein the second recording layer comprises the mid area, the data group, and the lead-out area in that order from the outer radius side of the second recording layer.

Claim 14 (Previously Presented): The recording apparatus according to claim 10, wherein the data group comprises: control data; and at least either video information or audio information.

Claim 15 (Currently Amended): A recording method comprising: a signal processing process for generating additional information including a data group and management information for the whole of recording information; and a recording process for recording a lead-in area, the management information, and a data group on a first recording layer of an information record medium and for recording a lead-out area and a data group on a second recording layer of the information record medium,

wherein the recording process records the lead-in area at the inner radius side of the information record medium, and records the lead-out area at the inner radius side of the information record medium,

wherein the recording process records a mid area at the outer radius side of the first recording layer, and records the other mid area at the outer radius side of the second recording layer.

Claim 16 (Canceled).

Claim 17 (Currently Amended): The recording method according to claim ~~[[16]]~~ 15, wherein the first recording layer comprises the lead-in area, the management information, the data group, and the mid area in that order from the inner radius side of the first recording layer.

Claim 18 (Currently Amended): The recording method according to claim ~~[[16]]~~ 15, wherein the second recording layer comprises the mid area, the data group, and the lead-out area in that order from the outer radius side of the second recording layer.

Claim 19 (Previously Presented): The recording method according to claim 15, wherein the data group comprises: control data; and at least either video information or audio information.

Claim 20 (New): The information record medium according to claim 5,
wherein said data group comprises control data and substantive information,
said substantive information comprising a plurality of cells,
said control data comprising information relating to a program chain which is a logical
unit comprising a combination of a plurality of programs, said programs comprising a
combination of said cells,
said cell comprising a plurality of video object units,
said video object units comprising at least one of a navigation pack, a video pack, an
audio pack, and a sub picture pack,
said navigation pack comprising a packet of search information and a packet relating to
display control,
said video packet comprising a video packet,
said audio packet comprising an audio packet, and
said sub picture pack comprising a sub picture packet.

Claim 21 (New): The recording apparatus according to claim 10,
wherein said data group comprises control data and substantive information,
said substantive information comprising a plurality of cells,
said control data comprising information relating to a program chain which is a logical
unit comprising a combination of a plurality of programs, said programs comprising a
combination of said cells,
said cell comprising a plurality of video object units,

said video object units comprising at least one of a navigation pack, a video pack, an audio pack, and a sub picture pack,

said navigation pack comprising a packet of search information and a packet relating to display control,

said video packet comprising a video packet,

said audio packet comprising an audio packet, and

said sub picture pack comprising a sub picture packet.

Claim 22 (New): The recording method according to claim 15,
wherein said data group comprises control data and substantive information,
said substantive information comprising a plurality of cells,
said control data comprising information relating to a program chain which is a logical unit comprising a combination of a plurality of programs, said programs comprising a combination of said cells,

said cell comprising a plurality of video object units,

said video object units comprising at least one of a navigation pack, a video pack, an audio pack, and a sub picture pack,

said navigation pack comprising a packet of search information and a packet relating to display control,

said video packet comprising a video packet,

said audio packet comprising an audio packet, and

said sub picture pack comprising a sub picture packet.

Claim 23 (New): An information record medium readable by an information reproducing apparatus, the information record medium comprising: a first recording layer on which a data group is recorded; and a second recording layer on which a data group is recorded, wherein

on the first recording layer, a lead-in area, the data group and a mid area are recorded in a direction from the inner radius side of the information record medium to the outer radius side of the information record medium;

on the second recording layer, a lead-out area, a mid area and a data group are recorded in a direction from the inner radius side of the information record medium to the outer radius side of the information record medium.

Claim 24 (New): The information record medium according to claim 23, wherein said data group comprises control data and substantive information,

said substantive information comprising a plurality of video object units,

said control data comprising information relating to a program which is a logical unit comprising a combination of a plurality of video object units,

said video object units comprising at least one of a video pack, an audio pack, and a sub picture pack,

said video packet comprising a video packet,

said audio packet comprising an audio packet, and

said sub picture pack comprising a sub picture packet.

Claim 25 (New): A recording apparatus comprising: a signal processing device which generates additional information including a data group; and a recording device which records a lead-in area, and a data group on a first recording layer of an information record medium and records a lead-out area and a data group on a second recording layer of the information record medium,

wherein the recording device records the lead-in area at the inner radius side of the information record medium, and records the lead-out area at the inner radius side of the information record medium,

wherein the recording device records a mid area at the outer radius side of the first recording layer, and records the other mid area at the outer radius side of the second recording layer.

Claim 26 (New): The recording apparatus according to claim 25, wherein said data group comprises control data and substantive information,

said substantive information comprising a plurality of video object units,

said control data comprising information relating to a program which is a logical unit comprising a combination of a plurality of video object units,

said video object units comprising at least one of a video pack, an audio pack, and a sub picture pack,

said video packet comprising a video packet,

said audio packet comprising an audio packet, and

said sub picture pack comprising a sub picture packet.

Claim 27 (New): A recording method comprising: a signal processing process for generating additional information including a data group; and a recording process for recording a lead-in area, and a data group on a first recording layer of an information record medium and for recording a lead-out area and a data group on a second recording layer of the information record medium,

wherein the recording process records the lead-in area at the inner radius side of the information record medium, and records the lead-out area at the inner radius side of the information record medium,

wherein the recording process records a mid area at the outer radius side of the first recording layer, and records the other mid area at the outer radius side of the second recording layer.

Claim 28 (New): The recording method according to claim 27, wherein said data group comprises control data and substantive information,

said substantive information comprising a plurality of video object units,

said control data comprising information relating to a program which is a logical unit comprising a combination of a plurality of video object units,

said video object units comprising at least one of a video pack, an audio pack, and a sub picture pack,

said video packet comprising a video packet,

said audio packet comprising an audio packet, and

said sub picture pack comprising a sub picture packet.